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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,235	08/05/2003	Peter Bernhardt	1-24671	6403
4859	7590	09/27/2006	EXAMINER	
MACMILLAN SOBANSKI & TODD, LLC ONE MARITIME PLAZA FIFTH FLOOR 720 WATER STREET TOLEDO, OH 43604-1619			GARCIA, ERNESTO	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 09/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/634,235

Applicant(s)

BERNHARDT, PETER

Examiner

Ernesto Garcia

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006 and 02 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-9, 11-13 and 15-23 is/are pending in the application.
- 4a) Of the above claim(s) 16-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-9, 11-13, 15 and 19-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/24/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

The drawings were received on July 17, 2006. These drawings are acceptable.

Restriction

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 6-9, 11-13, 15, and 19-23, drawn to a ball joint, and a ball-joint-and vehicle component assembly, classified in class 403, subclass 134.
- II. Claims 16-18, drawn to a method for producing a vehicle component and a ball joint assembly, classified in class 403, subclass 76.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of assembly. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process

(MPEP § 806.05(f)). In the instant case, the method of making the assembly can be performed by placing a head of a bolt opposite the vehicle component and placing the threaded shank of the bolt into a threaded hole in the ball stud.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Claims 16-18 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the originally presented claims were only directed to a ball joint.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 16-18 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

The drawings were received on July 17, 2006. These drawings are acceptable.

Claim Objections

Claims 6 and 12 are objected to because “a ball joint” in line 2 should be --the ball joint-- since the ball joint cannot be comprised of itself, i.e., a ball joint, or the preamble needs to be modified. Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

Claim Rejections - 35 USC § 112

Claims 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 20, the recitation that “said holding surface and said sealing surface are cylindrical” is redundant since claim 19, lines 4-5, indicates that the holding surface and the sealing surface are already cylindrical.

Regarding claim 21, the recitation that the “sealing bellows is provided with a metal ring which urges said sealing surface against said holding surface” is redundant since claim 19, line 6-7, already indicates the same limitation.

Double Patenting

Applicant is advised that should claims 13 and 15 be found allowable, claims 22 and 23 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Note that the body of claims 13 and 15 respectively includes all the limitations of claims 22 and 23.

Claim Rejections - 35 USC § 103

Claims 6-8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epp et al., 5,882,137, in view of Orlich et al., German patent, 1,575,708 (see translation).

Regarding claim 6, Epp et al. disclose, in Figure 2, a ball joint including a housing 4, a ball stud 1, and a sealing bellows 5. The sealing bellows 5 lies against the housing 4 and the ball stud 1. The ball stud 1 has a holding surface A5 (see marked-up attachment provided in the last Office action) against which a sealing surface A6 of the sealing bellows 5 lies. The sealing surface A6 defines a first axial dimension A7. The holding surface A5 defines a second axial dimension A8. The first axial dimension A7

Art Unit: 3679

is greater than the second axial dimension **A8**. The ball joint defines an axis. However, Epp et al. fail to disclose the holding surface **A5** being delimited towards the ball head by a shoulder, which forms a generally radially extending surface. Orlich et al. teach, in Figure 2, a holding surface **18** being delimited towards a ball head (shown round in hidden lines) by a shoulder **19** which forms a generally radially extending surface (the surface is perpendicular to the axis of the ball pivot **10**; see 2nd paragraph on page 5 of the translation). Orlich et al. do not explicitly state the reason for providing the shoulder **19**; however, it is well known in the art that providing a shoulder prevents the sealing bellows from sliding towards the ball head. Therefore, as taught by Orlich et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to delimit the holding surface towards the ball head by a shoulder, which forms a generally radially extending surface to prevent the sealing bellows from sliding towards the ball head. Note that the shoulder serves as an abutment for the sealing bellows.

Regarding claim 7, Epp et al., as discussed, appear to fail to disclose the holding surface **A4** and the sealing surface **A5** being cylindrical. Applicant should note that the courts have consistently held that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Further, since there is no criticality for making the holding surface and the sealing surface cylindrical it would have been obvious to choose any mating surface configuration. In any case, Orlich et al. provide evidence, in Figure 2, that a holding surface and the sealing surface are known to be cylindrical (see translation, page 5, 3rd

Art Unit: 3679

paragraph. Accordingly, it would have been obvious to make the holding surface and the sealing surface in Epp et al. cylindrical instead of what appears to be conical as either configuration has been equally known to provide a sealing interface.

Regarding claim 8, the sealing bellows **5** is provided with a metal ring **A9** urging the sealing surface **A6** against the holding surface **A5**.

Regarding claim 12, Epp et al. disclose, in Figure 2, a ball joint including a housing **4**, a ball stud **1**, and a sealing bellows **5**. The sealing bellows **5** lies against the housing **4** and the ball stud **1**. The ball stud **1** has a holding surface **A5** against which a sealing surface **A6** of the sealing bellows **5** lies. The sealing bellows **5** is provided with a metal ring **A9** urging the sealing surface **A6** against the holding surface **A5**. The sealing surface **A6** defines a first axial dimension **A7**. The holding surface **A5** defines a second axial dimension **A8**. The first axial dimension **A7** is greater than the second axial dimension **A8**. The joint defines an axis. However, Epp et al. appear to fail to disclose the holding surface **A4** and the sealing surface **A5** being cylindrical; and, Epp et al. fails to disclose the holding surface **A5** being delimited towards the ball head by a shoulder, which forms a generally radially extending surface.

Applicant should note that the courts have consistently held that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Further, since there is no criticality

Art Unit: 3679

for making the holding surface and the sealing surface cylindrical it would have been obvious to choose any mating surface configuration. In any case, Orlich et al. provide evidence, in Figure 2, that a holding surface and the sealing surface are known to be cylindrical (see translation, page 5, 3rd paragraph. Accordingly, it would have been obvious to make the holding surface and the sealing surface in Epp et al. cylindrical instead of what appears to be conical as either configuration has been equally known to provide a sealing interface.

Orlich et al. teach, in Figure 2, a holding surface **18** being delimited towards a ball head (shown round in hidden lines) by a shoulder **19** which forms a generally radially extending surface (the surface is perpendicular to the axis of the ball pivot **10**; see 2nd paragraph on page 5 of the translation). Orlich et al. do not explicitly state the reason for providing the shoulder **19**; however, it is well known in the art that providing a shoulder prevents the sealing bellows from sliding towards the ball head. Therefore, as taught by Orlich et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to delimit the holding surface towards the ball head by a shoulder, which forms a generally radially extending surface to prevent the sealing bellows from sliding towards the ball head. Note that the shoulder serves as an abutment for the sealing bellows.

Claims 9, 11, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epp et al., 5,882,137, in view of Orlich et al., German patent,

DE1575708, as applied to claims 6-8 and 12, and further in view of Buhl et al.,
5,312,200.

Regarding claims 9 and 13, Epp et al. as modified above, fail to disclose, the ball joint further including a vehicle component mounted to the ball joint; and a contact surface of the vehicle component is provided so as to adjoin the holding surface on a side of the holding surface facing away from the housing. Buhl et al. teach, in Figure 3, a ball joint further including a vehicle component 6 mounted to the ball joint; and a contact surface of the vehicle component 6 (the top surface of the component 6) so as to adjoin a holding surface on a side of the holding surface facing away from the housing to mount the vehicle component to the ball joint as a practical application to assemble a suspension. Therefore, as taught by Buhl et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a vehicle component mounted to the ball joint as part of a practical application to assemble a suspension. Applicant should note that Orlich et al. provide further evidence to teach a vehicle component mounted to a ball joint.

Regarding claims 11 and 15, Epp et al. disclose that the sealing bellows 5 is dimensioned such that the sealing bellows 5 cannot slip off from the holding surface when the ball joint is not mounted to a vehicle component. However, Epp et al. fail to disclose a vehicle component mounted to the ball joint. The Orlich et al. teach, in Figure 2, a vehicle component mounted to a ball joint as part of an application to form a

Art Unit: 3679

wheel suspension. Therefore, as taught by Orlich et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a vehicle component mounted to the ball joint as part of an application to make a wheel suspension. Applicant should note that Buhl et al. provide further evidence that a vehicle component 6 can be mounted to a ball joint (Fig. 3).

Claims 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epp et al., 5,882,137, in view of Orlich et al., German patent, DE1575708, and Buhl et al., 5,312,200.

Regarding claim 19, Epp et al. disclose, in Figure 2, a ball joint and a vehicle component assembly comprising a ball joint. The ball joint includes a housing 4, a ball stud 1, and a sealing bellows 5. The sealing bellows 5 lies against the housing 4 and the ball stud 1. The ball stud 1 has a holding surface A5 (see marked-up attachment provided in the last Office action) against which a sealing surface A6 of the sealing bellows 5 lies. The sealing bellows 5 is provided with a metal ring A9 urging the sealing surface A6 against the holding surface A5. The sealing surface A6 defines a first axial dimension A7. The holding surface A5 defines a second axial dimension A8. The first axial dimension A7 is greater than the second axial dimension A8. The joint defines an axis. However, Epp et al. appear to fail to disclose the holding surface A4 and the sealing surface A5 being cylindrical. Further, Epp et al. fail to disclose the holding

Art Unit: 3679

surface **A5** being delimited towards the ball head by a shoulder, which forms a generally radially extending surface, and a vehicle component mounted to the ball joint.

Applicant should note that the courts have consistently held that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Further, since there is no criticality for making the holding surface and the sealing surface cylindrical it would have been obvious to choose any mating surface configuration. In any case, Orlich et al. provide evidence, in Figure 2, that a holding surface and the sealing surface are known to be cylindrical (see translation, page 5, 3rd paragraph. Accordingly, it would have been obvious to make the holding surface and the sealing surface in Epp et al. cylindrical instead of what appears to be conical as either configuration has been equally known to provide a sealing interface.

Orlich et al. teach, in Figure 2, a holding surface **18** being delimited towards a ball head (shown round in hidden lines) by a shoulder **19** which forms a generally radially extending surface (the surface is perpendicular to the axis of the ball pivot **10**; see 2nd paragraph on page 5 of the translation). Orlich et al. do not explicitly state the reason for providing the shoulder **19**; however, it is well known in the art that providing a shoulder prevents the sealing bellows from sliding towards the ball head. Therefore, as taught by Orlich et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to delimit the holding surface towards the ball head by

Art Unit: 3679

a shoulder, which forms a generally radially extending surface to prevent the sealing bellows from sliding towards the ball head. Note that the shoulder serves as an abutment for the sealing bellows.

Epp et al. as modified above, fail to disclose, the ball joint further including a vehicle component mounted to the ball joint. Buhl et al. teach, in Figure 3, a ball joint further including a vehicle component 6 mounted to the ball joint as a practical application to assemble a suspension. Therefore, as taught by Buhl et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a vehicle component mounted to the ball joint as part of a practical application to assemble a suspension. Applicant should note that Orlich et al. provide further evidence to teach a vehicle component mounted to a ball joint.

Regarding claim 20, given the modification in claim 19, the holding surface and the sealing surface are cylindrical.

Regarding claim 21, given the modification in claim 19, the sealing bellows is provided with a metal ring, which urges the sealing surface against the holding surface.

Regarding claim 22, given the modification of claim 19, Epp et al. teach a contact surface of the vehicle component is provided so as to adjoin the holding surface on a side of the holding surface facing away from the housing.

Regarding claim 23, given the modification of claim 19, Epp et al. disclose that the sealing bellows 5 is dimensioned such that the sealing bellows 5 cannot slip off from the holding surface when the ball joint is not mounted to a vehicle component.

Response to Arguments

Applicant's arguments with respect to claims 6-9, 11-13, 15, and 19-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. In particular, the new limitation "said holding surface is delimited towards said ball head by a shoulder which forms a generally radially extending surface" in claim 6, lines 9-10, and "said cylindrical holding surface is delimited towards said ball head by a shoulder which forms a generally radially extending surface" in claim 12, lines 10-12, necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-282-7083. The examiner can normally be reached from 9:30-5:30. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 3679

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

E.G.

E.G.

September 22, 2006

A handwritten signature in black ink that reads "Daniel P. Stodola". The signature is written in a cursive style with a large, looped initial "D".

DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600